CDS UV brightenings explained by Quasi-Separatrices and Bald patchs in a S-shape active region

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We present multi-instrument observations of AR 8048, made between June 3 and June5 1997 as part of SoHO JOP033. This active region has a sigmoid-like global shape and undergoes transient erupting phenomena which releases the stored energy.

Using a force free field approach, we defined coronal magnetic field lines which fit with the observations. The large-scale magnetic field lines confirms the sigmoid characteristics of the active region. The study in 3D of the configuration explained where and how the energy is released at different places.

The Ne VI brightenings correspond to the location of tangent to the photosphere field lines, named "bald patch", they are localized in the low transition region and represent feet of field lines. The Si XII brightenings at coronal temperature are at the top of coronal loops joining quasi-separatrices.